

*History.*—Discovered by the author in the Isle of Wight in 1850, and by M. Cotteau in France in 1851, but first described by the latter in his ‘Catalogue Méthodique des Echinides recueillis dans l’étage Néocomien,’ and which brochure I received since I read this communication. As there is no figure of this Urchin extant, I intend giving one of the beautiful specimen before me, along with some other new forms of that group which I hope shortly to publish in the ‘Annals of Natural History.’

X.—*Descriptions of some newly discovered species of Araneidea.*

By JOHN BLACKWALL, F.L.S.

IN November 1850, Francis Walker, Esq., of Arno’s Grove, Southgate, afforded me an opportunity of inspecting an extensive collection of spiders made by him in England and Switzerland in the summer of the same year; and a request that I might be permitted to describe the following species comprised in the collection, which appear to be new to science, was most obligingly complied with by Mr. Walker.

Tribe OCTONOCULINA.

Family LYCOSIDÆ.

Genus *Lycosa*, Latr.

1. *Lycosa calida*.

Length of the male  $\frac{1}{2}$ th of an inch; length of the cephalo-thorax  $\frac{1}{10}$ ; breadth  $\frac{1}{4}$ ; breadth of the abdomen  $\frac{1}{16}$ ; length of a posterior leg  $\frac{7}{16}$ ; length of a leg of the third pair  $\frac{3}{10}$ .

Cephalo-thorax large, convex, glossy, compressed before, with a slight longitudinal indentation in the medial line of the posterior region; its colour is dark brown, approaching to black at the anterior part; a broad band of reddish brown extends along the middle, another occurs on each side, and a narrow one of the same hue is situated immediately above each lateral margin. Four of the eight eyes are minute and form a transverse line in front, the two intermediate ones being somewhat larger than the lateral ones; the other four are large, and are situated on the sides and in front of the cephalo-thorax, constituting a quadrilateral figure, whose anterior side is rather the shortest; the anterior eyes of the quadrilateral are the largest of the eight. Falces conical, perpendicular, armed with a few teeth on the inner surface, and of a pale reddish brown colour, with two obscure, longitudinal streaks of dark brown in front. Maxillæ strong, short, straight, somewhat enlarged and rounded at the

extremity, and of a pale yellowish brown colour. Lip nearly quadrate, dark brown at the base, but paler at the apex. Sternum almost circular, with blackish spots on the margins, and a longitudinal streak of the same shade extending from its anterior part, on each side of the medial line, more than half of its length. Legs long, slender, provided with hairs and sessile spines; they are of a pale reddish brown colour, the femora of the anterior pair being dark brown at the base; each tarsus is terminated by three claws; the two superior ones are curved and pectinated, and the inferior one is inflected near its base. The humeral joint of the palpi is dark brown; the cubital and radial joints are reddish brown, the latter, which is much the stronger, being abundantly supplied with black hairs; the digital joint is brown, of an oblong oval form, convex and hairy externally, concave within, comprising the palpal organs, which are moderately developed, not very complicated in structure, rather prominent, with a short projecting, pointed process near the outer side, and are of a brownish black colour tinged with red. The concavity of the digital joint does not extend to its termination, which is compact. Abdomen slender, oviform, convex above, projecting a little over the base of the cephalo-thorax; it is of a light orange-brown colour, with an irregular band of black on each side of the medial line; these bands converge towards the spinners, where they meet, and on the anterior part of the light orange-brown space comprised between them there is a narrow oval figure of orange-brown circumscribed by a fine black line; the sides are spotted with brownish black, and a longitudinal line composed of confluent spots of the same hue occurs on each side of the under part, the intermediate space being densely covered with white hairs.

This species was captured in June at Interlacken in the canton of Berne.

#### Family SALTICIDÆ.

#### Genus *Salticus*, Latr.

#### 2. *Salticus notatus*.

Length of the female  $\frac{1}{4}$ th of an inch; length of the cephalo-thorax  $\frac{1}{10}$ ; breadth  $\frac{1}{16}$ ; breadth of the abdomen  $\frac{1}{10}$ ; length of a posterior leg  $\frac{1}{6}$ ; length of a leg of the second pair  $\frac{1}{8}$ .

Legs robust, provided with hairs and sessile spines; they are of a pale yellow colour, the coxæ of the posterior pair having a black spot on the upper side; the fourth pair is the longest, the first and third pairs are equal in length, and the second pair is the shortest; each tarsus is terminated by two curved claws, below which there is a small scopula. The palpi resemble the

legs in colour. Cephalo-thorax nearly quadrilateral, and sparingly clothed with black and whitish hairs; it slopes abruptly in the posterior region, and is prominent in front, projecting beyond the base of the falces, which are small, vertical, and armed with a few teeth on the inner surface: the sternum is oval. These parts, with the maxillæ and lip, are of a brown-black colour, the last two, which are the palest, having a reddish tinge, particularly at their extremities. Eyes disposed in three rows, constituting three sides of a square, in the front and on the sides of the cephalo-thorax; the intermediate eyes of the anterior row are greatly larger, and the intermediate eye of each lateral row is much smaller than the rest. Abdomen oviform, pointed at its posterior extremity, convex above, projecting over the base of the cephalo-thorax; it is of a brown-black colour, with short whitish hairs thinly distributed over its surface; a pale yellowish brown band, broader in the posterior than in the anterior region, extends along the middle of the upper part, and an obscure, narrow band of whitish hairs is curved round the anterior part and produced on the sides nearly to the spinners; the sexual organs are reddish brown.

An adult female *Salticus notatus* was found in June among herbage in a wood at Southgate.

### Family THOMISIDÆ.

#### Genus *Thomisus*, Walck.

##### 3. *Thomisus umbratilis*.

Length of the male  $\frac{5}{10}$ ths of an inch; length of the cephalo-thorax  $\frac{1}{10}$ ; breadth  $\frac{1}{12}$ ; breadth of the abdomen  $\frac{1}{12}$ ; length of an anterior leg  $\frac{1}{2}$ ; length of a leg of the third pair  $\frac{1}{7}$ .

Eyes disposed on the anterior part of the cephalo-thorax in two transverse curved rows, forming a crescent, whose convex side is in front; the eyes of each lateral pair, which are seated on a tubercle, are much larger than the intermediate ones, those of the anterior row being the largest of the eight. Cephalo-thorax large, convex, abruptly sloping behind, compressed before, glossy, and of a brownish black colour, with a longitudinal band of red-brown on each side, and a broad one of the same hue extending along the middle. Falces short, strong, subconical, vertical, of a dark brown colour, with reddish brown extremities, and an obscure spot of the same hue in front. Maxillæ convex near the base, pointed at the extremity, and inclined towards the lip; they are of a pale reddish brown colour, and have a dark brown spot at the base on each side. Lip triangular and reddish brown, the apex being the palest. Sternum oblong, heart-shaped, approach-

ing to oval; it is of a pale reddish brown colour, with dark brown spots on the margins, opposite to the insertion of the legs. Legs robust, provided with hairs and spines; they are of a pale reddish brown colour, the entire femora of the anterior pair, the anterior extremity of those of the other pairs, a spot on each side of the genual joint, and one on each side of the tibiæ of the posterior legs being brownish black; the first and second pairs are decidedly longer and more powerful than the third and fourth pairs, the first pair being the longest, then the second, and the third pair the shortest; each tarsus is terminated by two curved pectinated claws. The palpi are short; the humeral joint is brownish black, and the cubital, radial and digital joints are of a pale reddish brown colour marked with a few dark brown spots; the radial joint is stronger than the cubital, and projects two apophyses from its anterior extremity; one on the outer side, which is long, slender and pointed, and the other, which is strong, prominent, obtuse, with a protuberance at its base, on the outer side, is situated underneath; the digital joint is oval, convex, and hairy externally, concave within, comprising the palpal organs; they are moderately developed, rather complicated in structure, and are of a dark reddish brown colour. Abdomen depressed, corrugated on the sides, broader at the posterior than at the anterior extremity, the latter, which appears as if cut in a straight line across, projecting over the base of the cephalo-thorax; its colour is dark brown tinged with olive and freckled on the upper part with minute yellowish brown spots, those on the posterior part, being confluent, form a few obscure transverse bars; five circular yellowish brown depressions occur on the upper part; the three anterior ones are much the most conspicuous, and describe a triangle whose vertex is directed forwards; immediately before this vertex there is a small yellowish white spot; a narrow band of the same colour, spotted with brown, extends along each side, and a short, obscure, curved, yellowish white line is situated near the outer side of each branchial operculum. This spider was taken at Interlacken in June.

#### Genus *Philodromus*, Walck.

##### 4. *Philodromus vivax*.

Length of the female  $\frac{1}{4}$ th of an inch; length of the cephalo-thorax  $\frac{1}{10}$ ; breadth  $\frac{1}{12}$ ; breadth of the abdomen  $\frac{1}{8}$ ; length of a leg of the second pair  $\frac{3}{8}$ ; length of a posterior leg  $\frac{7}{4}$ .

Cephalo-thorax short, broad, slightly compressed before, convex and glossy; it is of a dark brown colour, with a large yellowish brown oval in the cephalic region, comprising an oblique brown line directed backwards from each lateral eye of the pos-

terior row; these lines converge towards the posterior extremities of two fine and nearly contiguous lines of the same hue originating immediately behind the intermediate eyes of the anterior row, the four lines presenting the form of a small anchor; on each side of the medial line of the posterior part of the cephalo-thorax there are several short, oblique, yellowish brown streaks, and the lateral and frontal margins are yellowish white. Falces short, subconical, vertical, and yellowish brown in front, except at the base, which, with the outer side, is dark brown. Maxillæ gibbous at the base, inclined towards the lip, convergent at the extremities, and of a pale yellowish brown colour. Lip oval, dark brown, with a yellowish tinge at the apex. Sternum heart-shaped; it is of a yellowish brown colour, the lateral margins and an obscure, narrow, longitudinal line in the middle being dark brown. Legs long, moderately robust, provided with a few sessile spines; they are of a yellowish brown colour, with spots and longitudinal streaks of dark brown; the second pair is the longest, then the first, and the fourth pair is the shortest; each tarsus is terminated by two curved claws, and has a climbing apparatus on its under side. The palpi are short and resemble the legs in colour. Eyes disposed on the anterior part of the cephalo-thorax in two curved, transverse rows, forming a crescent whose convexity is directed forwards; the lateral eyes of each row are seated on distinct prominences, and the intermediate eyes of the anterior row, which are nearer to each other than those of the posterior row, are rather the smallest of the eight. Abdomen somewhat depressed, broader in the posterior than in the anterior region, but rather pointed at the spinners, projecting a little over the base of the cephalo-thorax; on the upper part and sides it is of a dark olive-brown colour, spotted with numerous irregular, yellowish white spots; those on the sides are the largest, several small ones, forming a row immediately above the spinners, being angular, with their vertices directed forwards; the under part is yellowish white, three brown bands extending along the middle and uniting in a point at the base of the inferior pair of spinners; the sexual organs are of a deep reddish brown colour.

This interesting *Philodromus* was captured at Interlacken in June.

Family DRASSIDÆ.

Genus *Drassus*, Walck.

5. *Drassus reticulatus*.

Length of the female, not including the spinners,  $\frac{2}{3}$ ths of an inch; length of the cephalo-thorax  $\frac{1}{6}$ ; breadth  $\frac{1}{8}$ ; breadth of the

abdomen  $\frac{1}{7}$ ; length of a posterior leg  $\frac{5}{12}$ ; length of a leg of the third pair  $\frac{5}{16}$ .

The eyes are round, and are disposed on the anterior part of the cephalo-thorax in two nearly parallel, transverse rows; the posterior row is rather the longer, and the intermediate eyes, which are the smallest, and nearer to each other than they are to the lateral eyes of the same row, form a square with the intermediate eyes of the anterior row, which are much the largest of the eight and black, all the others being diaphanous. Cephalo-thorax oval, convex, pointed before, and thinly covered with hairs: maxillæ long, convex at the base, depressed near the middle, enlarged at the extremity, which is obliquely truncated on the inner side and curved towards the lip, which is long, oval, and rounded at the apex: sternum oval, broader in the posterior than in the anterior region, and supplied with hairs, which are densest on the margins: legs robust, moderately hairy, and provided with a few sessile spines; the fourth pair is the longest, the first slightly surpasses the second, and the third pair is the shortest; each tarsus is provided with hair-like papillæ on the under side, and has two curved, pectinated claws at its extremity. These parts, with the palpi, are of a yellowish brown colour, the digital joint of the latter and the lip being the darkest. The falces are powerful, conical, armed with one or two very minute teeth on the inner surface, slightly prominent, and of a red-brown hue. Abdomen of an elongated oviform figure, projecting a little over the base of the cephalo-thorax; it is sparingly clothed with short whitish hairs, and is of a pale olive-brown colour, reticulated with fine, dull, yellowish white lines; the sexual organs are minute and reddish brown; and the spinners are prominent, cylindrical, and of a pale yellowish brown colour.

The spider from which the foregoing description was made was captured in August near Lancaster.

#### Family LINYPHIIDÆ.

#### Genus *Linyphia*, Latr.

#### 6. *Linyphia pernix*.

Length of the male  $\frac{1}{10}$  of an inch; length of the cephalo-thorax  $\frac{1}{6}$ ; breadth  $\frac{1}{4}$ ; breadth of the abdomen  $\frac{1}{4}$ ; length of an anterior leg  $\frac{1}{4}$ ; length of a leg of the third pair  $\frac{1}{7}$ .

Falces long, powerful, subconical, with a protuberance at the base, in front, and a few teeth on the inner surface; they are inclined towards the sternum, and are of a reddish brown colour. Maxillæ rather darker-coloured than the falces, straight, and somewhat enlarged at the extremity, which is curvilinear at its

exterior angle. Lip semicircular, prominent at the apex, and, like the sternum, which is heart-shaped, of a very dark brown colour. Cephalo-thorax oval, convex, glossy, with an indentation in the medial line of the posterior region, and some coarse hairs, directed forwards, behind the eyes; its colour is dark brown. Eyes disposed on black spots on the anterior part of the cephalo-thorax; the four intermediate ones form a trapezoid whose anterior side is the shortest, and those of each lateral pair are seated obliquely on a protuberance and are nearly contiguous; the anterior eyes of the trapezoid are the smallest of the eight. Legs long, slender, provided with hairs and spines, and of a red colour; the first pair is the longest, then the second, and the third pair is the shortest; each tarsus is terminated by three claws; the two superior ones are curved and minutely pectinated, and the inferior one is inflected near its base. The palpi are short, and resemble the legs in colour, with the exception of the digital joint, which is dark brown; the radial joint is stronger than the cubital, and has some long hairs in front; the digital joint is somewhat oval, having a large lobe on the outer side, near its base; it is convex and hairy externally, concave within, comprising the palpal organs, which are highly developed, complicated in structure, with a broad, compressed, curved process projecting nearly at right angles from their base, on the outer side, and are of a dark reddish brown colour. Abdomen oviform, very sparingly supplied with short hairs, convex above, projecting over the base of the cephalo-thorax; it is of a yellowish brown colour on the upper part and sides, a series of black angular lines, whose indistinct vertices are directed forwards, extending along the middle of the former; the extremities of the anterior lines of the series are much the most strongly marked, and a small yellowish white spot occurs immediately above the spinners; the under part is of a pale brown colour.

This species was found among juniper bushes at Southgate in May.

#### Family EPËIRIDÆ.

#### Genus *Epëira*, Walck.

#### 7. *Epëira calva*.

Length of the female  $\frac{1}{6}$ th of an inch; length of the cephalo-thorax  $\frac{1}{8}$ ; breadth  $\frac{1}{8}$ ; breadth of the abdomen  $\frac{1}{10}$ ; length of an anterior leg  $\frac{1}{6}$ ; length of a leg of the third pair  $\frac{1}{8}$ .

Eyes disposed on the anterior part of the cephalo-thorax; the four intermediate ones are placed on a black prominence and describe a quadrilateral figure, whose anterior side is the shortest; those of each lateral pair are seated on a small black tubercle and

are almost in contact; the posterior eyes of the quadrilateral figure are the largest, and the anterior ones are the smallest of the eight. Cephalo-thorax rounded on the sides, compressed before, elevated and convex in the cephalic region, depressed behind, glossy, and of a very dark brown colour; with a broad band in the middle, which decreases in breadth to its posterior extremity where it is yellowish white, the anterior part being yellowish brown. Falces powerful, conical, vertical, armed with teeth on the inner surface, and of a reddish brown colour, the base being the darkest. Maxillæ short, straight, enlarged and rounded at the extremity: lip semicircular, but somewhat pointed. These parts are of a very dark brown colour, their extremities being faintly tinged with red. Sternum heart-shaped, with small prominences on the sides, opposite to the insertion of the legs; its colour is brownish black. Legs moderately long, provided with hairs and a few fine spines; they are of a yellowish brown colour, the femora being marked with brown longitudinal streaks; the first pair is the longest, then the second, and the third pair is the shortest; each tarsus is terminated by the customary number of claws of the usual structure. The palpi are short and of a yellowish brown colour, the radial and digital joints being the darkest. Abdomen oviform, convex above, projecting greatly over the base of the cephalo-thorax; it is of a pale yellowish brown colour on the upper part, and is marked with four minute brown spots which form a quadrilateral figure whose anterior side is the shortest; a narrow, irregular, dark brown line extends along each side, from the anterior part, more than two-thirds of its length, and contiguous to the inferior margin of these lines, which are most distinct at their extremities, there is a parallel band of yellowish white; the sides are dark brown freckled with paler brown, and the under part is brownish black, bounded laterally by a yellowish white band extending from the anterior extremity beyond the spinners; the sexual organs are almost concealed by a scale-like process situated on each side of them.

—The specimen of *Epëira calva* described above was taken in June at Interlacken.

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XI.—*Note of the Mollusca observed during a short visit to the Canary and Madeira Islands, &c., in the months of April and May 1852.* By R. McANDREW, F.L.S.

ON the 12th of March I sailed from Liverpool in a small yacht, on a voyage undertaken to benefit the health of some members of my family. We reached Lisbon after a boisterous navigation of ten days passed without any occurrence worthy of note, and